

ENVIRONMENTAL ASSESSMENT RECORD
CO-WRFO-03-049
White River Powerline Fuels Reduction

**Prepared by: Department of the Interior, Bureau of Land Management, White River Field
Office on June 6, 2003**

Rio Blanco County (RBC) is among the top three highest counties in Colorado for probability of wildfire (Neuenschwander et al. 2000). As part of an emergency preparedness review, the Rio Blanco County evaluated risk of wildland fire through geographic information systems analysis (RBC 2003, Strategic Emergency/Disaster Management Program, Revision B). This analysis involved overlaying fuels with community features, such as homes, oil & gas wells, roads, industrial facilities, electrical lines and wildlife habitat. The analysis revealed that electrical transmission lines that service mining, industrial, and oil and gas facilities had the most significant exposure to risk of wildland fire hazard in the county. Therefore, the county identified power line protection as a high priority in their Strategic Wildland Fire Management Program (RBC 2003, Rio Blanco County, Colorado, Strategic Wildland Fire Hazard Management Program).

Existing Condition:

In the project area southwest of Meeker, Colorado, wildfire fuels have built up to dangerous levels around a high-power electric line (see attached maps). This 138KV power line was constructed in 1981 using double wooden pole structures for support. The power line structures were installed using a helicopter without clearing a corridor of vegetation. As a result, there are areas along the power line where the lines dip (sag) close to dense vegetation either directly beneath or adjacent to it. This has created an extreme risk of damage to the lines in the event of wildfire. The pole structures are also at risk due to continuous adjacent fuels and the re-growth of vegetation around the poles over the past 20 years. Post-construction reclamation actions along the power line included placement of slash from construction around the pole structures. Much of this slash is still present, and could provide a link to the adjacent fuels and increase the risk of fire damage.

The fuels condition in the vicinity of the powerline also creates a significant safety hazard for fire fighters. Fire and dense smoke are conductors of electricity. Electrical current can be transmitted through flame lengths and dense smoke. This is highly dangerous for firefighters who may have to suppress wildfire in and around the high voltage powerline. It could also result in the creation of new or spot fires when electric current follows the dense smoke down into trees and other surrounding vegetation.

Desired Future Condition:

The desired condition is one in which the fuels beneath and adjacent to the powerline are reduced to a level that would allow wildfires to be kept on the ground, or, in a worst case scenario, that a running crown fire would be transformed back to the surface, where suppression efforts would be more effective and safe. The desired fuels condition is also one that reduces the likelihood that wildfire smoke and flame could make contact with the power line, thus reducing the potential for electrocution of firefighters and spot fire creation.

To achieve these conditions, in some areas the vegetation canopy would need to be completely removed to create firefighter safety zones and in other areas the vegetation canopy would need to be reduced to a minimum of 20 foot crown spacing between trees.

Need for Proposed Action:

The proposed action is needed to reduce wildfire hazards for protection of the key electrical line that provides electrical power to industrial facilities at Exxon Mobil's Magnolia Camp, NATEC Mine, and American Soda Mine. There is no alternate power source in the regional power grid for these facilities. Therefore, if the line ceases to function, the industrial complex will have no source of electrical power and will be forced to shut down. In addition to powerline protection, the proposed action is needed to reduce the safety risk to fire fighters working near the powerline.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Proposed Action: The Bureau of Land Management (BLM) is proposing vegetative treatments to help protect an important power transmission line by reducing hazardous fuels and improving fire suppression options. The proposal is to thin 300 acres of vegetation in segments under and adjacent to a power transmission line using mechanical and hand thinning treatments to reduce the potential loss of the powerline by wildfire. The transmission line runs from a substation located on the south side of Meeker, Colorado to a switchyard 28 miles to the southwest of Meeker (see attached Map 2: Detailed Location of Proposed Action). Included as part of this vegetative treatment is to establish safety zones (areas cleared of vegetation) to help fire fighters safely attack future wildfires.

This treatment will help protect 181 pole structures and portions of the line that sag within close proximity of underlying trees and vegetation. Part of the treatment utilizes heavy machinery to remove and thin 200 acres of pinyon pine, juniper, and various mountain shrubs. The remaining 100 acres of the treatment is inaccessible to heavy equipment and will be implemented by a crew with chainsaws to hand cut, pile, and burn 100 acres of the same vegetative type.

THINNING METHODS:**Mechanical Treatment**

Large heavy equipment such as the Hydro-ax, Fecon Flail, Fecon Bull Hog will be used in accessible areas over portions of the powerline that will cumulatively thin approximately 200 acres of vegetation. The machines are essentially large rubber tired tractor (similar to a skidder) equipped with various cutting and mowing devices on the front end of the hydraulic arms. The "hydro-ax" is equipped with a 6' - 8' hydraulic powered mowing head (2 bladed) attached to the front arms (similar to a front end loader). The flail and bull hog are equipped with a rotating

drum with multiple carbide cutting tips instead of the large 2 bladed mower attachment. The machines are capable of shredding trees up to 12" in diameter and 15' tall as well as mowing brush like a conventional brush beater. It generally leaves small branches and pieces of wood from pencil size up to bowling ball size. The mulch is evenly scattered across the surface and the tires or tracks distribute the weight of the equipment. This treatment creates minimal surface disturbance. Grasses and forbs are relatively undisturbed and remain viable, which protects the soil from erosion. To protect soil and water quality, operations would not be allowed in muddy conditions.

Brush Beating: A heavy-duty mower pulled behind a rubber-tired tractor will be used in flat to gently rolling sagebrush areas. Brush would be mowed to a height of 3 to 4 inches with islands or strips of untreated vegetation left for more natural visual appearance. Operations would not be conducted in muddy conditions.

Hand Thinning with Chainsaws:

There will be 100 acres treated by hand to cut, pile and burn trees within discrete treatment units (see Map 3: Numbered Discrete Treatment Units) and along the existing road on the ridge between Hatch Gulch and Dudley Gulch North. A hand crew would cut trees with chainsaws to provide spacing between the crowns of the trees. The stumps will be cut down to a height of 4 inches or less. The crew will place slash in piles approximately 15' x 15' x 8' and will be later burned during favorable conditions that would allow burning with maximum control to prevent spread to unburned areas. On slopes greater than 20%, or if pile burning is not feasible or presents a hazard to the power line, slash will be scattered.

PROJECT DESIGN SPECIFICATIONS COMMON TO ALL TREATMENTS

The following are both design and mitigation measures that would be implemented as part of the proposed action, and would be applicable to all fuels treatments throughout the life of this project.

- 1.) On slopes 0 to 20%, trees will be selectively removed to break-up fuel continuity to provide a 20 foot clearing between the crowns of the trees. Approximately 45 to 60 trees per acre would be left after thinning depending on size and age class of trees.
- 2.) In units 1-3, 5 and 7 all trees will be removed. These areas will be cut to match existing vegetation openings in the surrounding environment and cut to blend in with the existing woodland to avoid visual angular features of the treatment.
- 3.) In units 4 and 6 100% of the canopy will be removed except for 6 acres of mature woodland that will be marked by BLM biologists (tree paint boundaries) in units 4 and 6 prior to machine treatment.
- 4.) In units 12 and 13 the canopy will be reduced to 20' crown spacing except for marked wildlife trees.

- 5.) A cultural site, # 5RB 1515 (Section 6 T3S R96W), will be avoided by all ground disturbing actions. Wickiup structures shall also be avoided, should any be present, on the site.
- 6.) Three areas in T 2 S, R 97 W, Section 3 must be inventoried for cultural resources prior to initiation of work. Any resources identified in those areas (e.g. wickiups) shall be avoided by ground disturbing activities.
- 7.) In the western section of unit 11, a nest site will be protected and not treated. A 0.5 acre area will be conspicuously marked by WRFO biologists to prevent any treatment to the site. Operations will be kept out of that 0.5 acre area effectively separating and screening woodland thinning operations from the nest site by an additional 150'. BLM biologists will make subsequent determinations on the occupancy of this nest site and sensitivity of the adults to distant disturbance. If warranted by these determinations, BLM may impose timing limitations that restrict the treatment of unit 11 to a timeframe either outside the nest season (May through July) or during specifically conditioned midday hours once the chicks have gained acceptable mobility and are fully feathered.
- 8.) For the hand treatment (unit 16) along the main road a 100' wide corridor along the road will be thinned to 20' crown spacing to create defensible space and improve access during suppression and/or holding actions on a potential fire use incident.
- 9.) Seven safety zones will be constructed along the hand treatment corridor (see attached Map 2: Detailed Location of Proposed Action) to remove 100 % of the canopy and other vegetation sufficient to provide an area safe from wildfire for fire fighter protection. Each of the areas will be 2 to 3 acres in size and the stump height to be left for all trees cut will be no greater than 4 inches.
- 10.) Units 14 and 15 will be surveyed for raptor nesting activity by BLM biologists prior to the use of heavy machinery. In the event a raptor nest site is found, provisions will be attached to this project such that the short and long-term utility of the nest site and territory are maintained. Otherwise the treatments will be the same as identified in number 1.
- 11.) BLM biologists will determine whether the identified sharp-shinned hawk nest adjacent to unit 16 is occupied prior to thinning operations, and if necessary, make provisions to avoid nest disruption (e.g., defer clearing work on the eastern 500' of line once young have fledged).
- 12.) In those units with mature woodland components (units 4, 6, 12, and 13), BLM biologists will identify, and conspicuously mark trees that are capable of providing a mixture of hard and soft snags to promote more diversified short and long-term non-game species. These trees will not be treated or removed.

- 13.) Heavy equipment will be washed prior to entering the project area to prevent the spread of noxious weeds.
- 14.) Operators must avoid flagged noxious weed areas while accessing the sites on the ridge between Gardenhire and Collins Gulch with mechanical equipment.
- 15.) BLM will re-vegetate all burned slash pile areas with Native Seed mix #3 immediately after burning. Any potential disturbed areas created by mechanical treatment machinery will also be re-vegetated with Native Seed mix #3.
- 16.) All treatment sites will be monitored for a minimum of three years to identify invasive and noxious weeds. The monitoring will recommend treatments consistent with BLM weed treatment policies dependent on the species and conditions involved.

No Action Alternative: Under this alternative, no hazardous fuel reduction activities would occur. BLM's ability to protect the power line from wildland fire will not be enhanced. Firefighter and public safety will not be enhanced should a fire start in the area that requires suppression actions.

Alternatives Considered but Eliminated from further detailed analysis:

- 1.) **Prescribed fire** on a broadcast scale was considered but eliminated from further analysis because risk to fire personnel working near the line is prohibitive, and even brief interruptions of power through the line are economically infeasible.
- 2.) A **chemical treatment** (herbicide) method was considered but eliminated from further analysis because the resulting dead plant remains would still present a hazardous (although reduced) fuel situation. Additionally, results of selective chemical treatment (using herbicide on selected sites) can be visually unappealing.

ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION AND ALTERNATIVES:

Fuels and Fire Management:

Affected Environment: The proposed treatment areas are focused on reducing the fuels to modify fire behavior that will make conditions favorable and safer to fight and manage fire along the powerline. Based on calculations using the BEHAVE Fire Behavior Prediction Program and representative expected summer weather and fuel parameters, present fuel conditions have the potential to produce extreme fire behavior, with rates of spread (ROS) in excess of 212 chains/hour (almost 3 miles per hour) and flame lengths greater than 16-20 ft. These predictions are consistent with past experiences on fires in similar areas and fuel conditions to those in this project. Wildland fire under these conditions cannot be safely and effectively suppressed, and protection of public and firefighter safety is the only prudent strategy.

Management options for responding to wildfire within this resource area are outlined in the White River Fire Management Plan (BLM 1999). This Fire Management Plan divides the

resource area into a number of management units called polygons. Four basic types of fire management are described under the plan;

- ? “A” category polygons include areas where fire is entirely unwanted and aggressive suppression actions are warranted in all scenarios. No “A” polygons were identified in the White River Field Office’s Fire Management Plan.
- ? “B” category polygons specify that unmanaged fire is not desired, but allow for a variety of tactics appropriate for each specific fire.
- ? “C” category polygons identify areas where fire is desired, but specify specific constraints based on socio-economic needs.
- ? “D” category polygons are identified as areas where fire is desirable, but exceptions within the polygon may be identified.

The plan specifies appropriate management response to wild fire in each unit based on a number of criteria that include: safety of people and property, resource management objectives, the role of fire in the ecosystem, fire suppression cost-benefit analysis, and numerous fire behavior and weather traits. The proposed project is within the D4 - Little Hills polygon. The area features a mix of Pinyon Juniper stands in association with mountain shrub communities where wildland fire is desired, and there are few constraints for its use. The plan identifies the Magnolia to American Soda powerline as a constraint where fire suppression efforts are necessary to protect the powerline.

Impact of Proposed Action: The proposed action would break up the continuity of the canopy reducing the potential for extreme fire behavior and fire runs for units 1-15. In unit 16, total fuel loading would be reduced from approximately 28 tons/acre to about 11 tons/acre (see appendix B #5). By reducing the available biomass, and breaking up the continuity of the canopy, the potential for a crown fire can be reduced and possibly prevented depending on fire behavior conditions. This would result in essentially changing the fuel type to a grass-sage fuel model, and any wildland fire would generally spread from the available fuels on the ground (grass, brush, dead/down logs), which could then be safely and effectively suppressed by fire suppression forces.

Minimum crown spacing of 20’ was determined utilizing BEHAVE (Fire Behavior Prediction and Fuel Modeling) computer modeling. BEHAVE is a system of interactive computer programs for modeling fuel and fire behavior. It was developed by the USDA Forest Service, Rocky Mountain Research Station, Fire Behavior Project, located in Missoula, MT.

Impact of No Action Alternative: There would be no fuels reduction that could change the fire behavior (fire intensity, flame lengths, rate of spread, spotting, etc.) of an approaching fire. Fire suppression tactics including firefighter safety considerations are based on and limited by the fire behavior characteristics of the wildland fire. Without the thinning treatments that provide defensible space and safety zones essential to firefighters, fire suppression efforts would be very restricted or not feasible and the potential to burn and shutdown a segment of the powerline will continue. The constraints in the D4 polygon in relation to fire management listed above will continue to be necessary.

A review of the regional fire history provides an index to the relative risk to the powerline in association with the No Action Alternative. Historically, the White River Field Office experiences about 200 fires per year. Based on records from 1999 through 2002, a total of 27,968 acres have burned in wildland fires. Of these acres, about 9,400 acres have burned in “B” polygons, 13,936 acres have burned in “C” polygons, and 4,633 acres have burned in “D” polygons. The D4 polygon has had 267 acres burned in this time period. Conceivably, the powerline would not be threatened by fire for an extended period of years. However local fire history and fire behavior combine to indicate a high level of risk associated with the no action alternative.

Exxon Mobil depends on the powerline to provide power to their Magnolia Camp compressor station. NATEC Mine depends on the powerline to produce power in support of their nacholite mining operation. The loss of this power source would shut down NATEC until repairs could be made to the powerline. The American Soda Mine in particular depends on electrical power to hydraulically mine and transport nacholite in a heated solution through a 30 mile pipeline (24 inches in diameter) from the mine site to the processing plant near the town of Parachute. The loss of this power source would result in not being able to pump the solution through the pipeline.

Cultural Resources:

Affected Environment: All of the proposed project area has been inventoried for the presence of cultural resources, except for approximately 33 acres, in Section 3 of Township 2 South Range 97 West (T2S R97W – vicinity of units 7 and 8 on attached Map 3). Only one cultural site (5RB1515), located in Section 6 T3S R96W (south of the proposed project area), was identified during the inventories. This site contains artifacts indicating that there may once have been a Native American open campsite there. More information on this site is needed to determine if it would be eligible for the National Register of Historic Places (NRHP). The rest of the inventories revealed only insignificant, NRHP non-eligible, artifacts. Results of these inventories are on file at the BLM White River Field Office.

Impact of Proposed Action: The proposed action does not pose any threat to known or anticipated cultural resources of significance provided that BLM adheres to the mitigation measures identified.

Impact of No Action Alternative: There would be no impacts to cultural resources under the No Action Alternative.

Threatened and Endangered Animals:

Affected Environment: There are no threatened or endangered animals that are known to reside in or derive important benefit from the proposed project area.

It is the policy of BLM to manage sensitive species in a manner that does not contribute to their becoming candidate for listing under the Endangered Species Act. Two such BLM sensitive species, the northern sage grouse and northern goshawk, are seasonal or year-round residents in the project area. Habitats currently suitable and occupied by sage grouse on the southwest end of the project area are confined to larger sagebrush parks that remain relatively

clear of pinyon-juniper and Utah serviceberry. The proposed treatment units are separated from occupied sage grouse habitat by at least 0.5 mile and involve little, if any, potentially suitable habitat. The Northern goshawk is a rare breeding species in this area's mature pinyon-juniper woodlands. BLM raptor nest surveys conducted for powerline construction in 1998 located an active goshawk nest within 350 feet of one of the proposed clearing units. It is presently too early in the year to determine the status of this nest.

Impact of Proposed Action: Although the proposed treatment sites would not involve the actual goshawk nest site, substantive modification of mature canopy in the vicinity of these nest sites would risk altering the long term utility of this goshawk territory (e.g., foraging habitat in close proximity to the nest) for subsequent reproductive use. In an effort to insure that the integrity of this goshawk nesting territory remains intact, a BLM biologist evaluated those treatments within 1000' of the nests. Treatment unit 12, located about 600' lateral and in an adjacent drainage (see attached Map 3), involves 3 woodland acres and narrowly expands 2 sides of an existing sagebrush park; treatment unit 11, located about 400' from the nests (see Map 3), involves 2 acres of a sparsely wooded shale knoll bounded on two sides by two-track roads. These treatments would have no conceivable consequence on woodland character within the nest territory. However, to ensure this, a narrow western extension off unit 11 (less than 0.5 acre) will not be treated (see mitigation measures below), effectively separating and screening woodland thinning operations from the nest by an additional 150' (i.e., 500' total distance from the nest site). BLM biologists will make subsequent determinations on the occupancy of this nest site and sensitivity of the adults to distant disturbance. If warranted by these determinations, BLM may impose timing limitations that restrict the treatment of unit 11 to a timeframe either outside the nest season (May through July) or during specifically conditioned midday hours once the chicks have gained acceptable mobility and are fully feathered.

Impact of No Action Alternative: There would be no potential influences on the character or suitability of goshawk nest habitat. See discussion in Wildlife section for reference to indirect influences on sage steppe species, including sage grouse.

Wildlife:

Affected Environment: The project area is used by big game throughout the year, but primary use by deer and elk occurs during the fall through spring months. Elk are normally transient and limited in numbers, but concentrated deer use can be expected at upper elevations in the fall and spring, and during the winter and spring months within lower elevation draws and woodlands.

BLM biologists surveyed all of the proposed treatment areas, except for the mechanical treatment area south of Piceance Creek (the southern-most segment on attached Map 2) for woodland raptor nesting activity. A single, recently constructed sharp-shinned hawk nest was found about 400' from the most easterly safety zone on the ridge south of Hatch Gulch (near the Hand Treatment Area on attached Map 2). BLM Biologists will survey the remaining treatment area for nest sites before treatment commences.

Nongame birds and mammals associated with these tracts are widely distributed and typical of pinyon-juniper woodlands and interspersed mountain shrub communities that are found throughout the White River Resource Area. These tracts contain mostly transitional vegetation, ranging from mature pinyon-juniper woodlands to fire-induced shrub steppe. Nongame wildlife communities are not as well developed within these tracts as they are in adjacent, more ecologically complex and/or stable habitats. Habitats within the project area are typically comprised of high density regenerating pinyon-juniper stands that tend to support sparse avian and small mammal populations.

Woodland character, including canopy density, of linear stands along roads and the powerline corridor, has been altered by past fire events (creating submature and younger regeneration stands), a number of small insect outbreaks (reducing stem density of submature pinyon), and removal of large pinyon stems from a past commercial fuel wood sale. Presently, these stands support little cavity nesting development.

Units 1-7 (see Appendix A and attached Map 3) consist primarily (85%) of heavy 50-75 year old pinyon and juniper regeneration with well-developed big sagebrush/snowberry/bitterbrush shrub understories. These units represent the southern periphery of a formerly extensive fire-induced shrub vegetation community. Scattered, early-mature trees appear in the western units, but these are first generation trees—the areas having no evidence of former woodland expression. There is little suitable substrate for woodland raptor nesting or cavity dwelling species in these units. There are two acres of old growth pinyon-juniper and four acres of mature growth on the southern fringes of units 4 and 6, respectively. These stands have been heavily modified by insect-induced pinyon mortality and fuel wood cutting.

The western units (8-13) are pinyon-juniper sites, primarily of early mature character. There is a considerable amount of insect-mortality in submature or early mature pinyons. In a number of units, there is a core of younger second growth or isolated sagebrush parks with a narrow fringe of more mature woodland. Because these treatment polygons lie in close proximity to historic roads, much of their canopy has also been modified by past post and fuelwood cutting.

Impact of Proposed Action: The proposed action would not significantly shift landscape composition or habitat availability.

Impact in Linear stands along roads and the powerline corridor (this is the hand treatment area (unit 16) and all areas south of units 1-13 on attached Map 2):

Big game, shrubland nongame, and woodland species will likely continue to, or (due to increased forage) may increase use of the habitat in treated linear stands along roads and the powerline corridor. Although the tree density and pattern resulting from this project does not commonly occur in woodlands in this area, the array may provide sufficient residual cover and substrate to encourage use by woodland wildlife species. Thinning will reduce, or wholly remove the existing pinyon-juniper canopy, while reserving and promoting increased growth of existing shrubs and ground cover. These shrubs and ground cover will provide increased forage and cover for big game and shrubland nongame species.

The canopy reductions along roads may increase the frequency and duration of heavy snow crusting (i.e., wind and solar exposure) which can impede big game movements. However, since affected corridors are narrow, this effect is not expected to have a substantive influence on local big game movements or distribution. Conversely, snow pack would likely recede from these ridgeline areas earlier than normal providing increased forage by complementing the availability of emerging herbaceous growth on adjacent south and west facing slopes in the late winter/early spring.

The proposed narrow canopy reductions adjacent to existing roads are not expected to substantially alter the current potential use of woodland stands as nest or foraging habitat for woodland raptors. Woodland raptors typically show little propensity for nesting along ridgeline crests, or within 50 yards of roads (i.e., both linear segments). It is likely that further thinning of these corridors, which invariably contact relatively undisturbed woodland slopes, would continue to provide foraging habitat for raptors that use woodland openings and margins (e.g., pygmy owl, Cooper's hawk). Increased understory vegetation, in response to canopy thinning, may enhance the abundance of small mammal and bird prey. BLM biologists will further investigate the sharp-shinned hawk nest site, located during recent surveys, to determine whether provisions to avoid nest disruption are necessary. In addition, if any nest sites are identified during the survey of the remaining unsurveyed segment, biologists will determine if similar provisions are necessary.

Virtually all nongame birds associated with these woodlands will continue to use small or narrowly thinned areas along roads and the powerline corridor. There may be some reduced capacity for those preferring more fully developed canopies for nesting (e.g., black-throated gray warbler, dusky flycatcher, white-breasted nuthatch). Other nongame birds (e.g., gray flycatcher, chipping sparrow, spotted towhee) would more fully exploit treatment areas as the understory responds to reduced canopy density. It is likely that the eventual maturation and aging of residual trees would offer nest cavity opportunities for species such as mountain bluebird and violet-green swallow not strikingly dissimilar from present stand progression.

Similar shifts would be expected in the small mammal community. Species that thrive on an abundance of large woody debris (e.g., chipmunks, woodrat) would be expected to decline in the short and long term, in favor of those species associated with better-developed shrub and herbaceous ground cover (e.g., long-tailed and sagebrush vole).

Impact in units 1-13 (see Appendix A and attached Map 3):

Canopy thinning in the westernmost units (8-13) will have the same overall influences on big game forage and cover as discussed for the linear stand treatments. Canopy removal in the conifer regeneration sites will dramatically improve the production and availability of forage for seasonal big game. The small size of these units, and proximity to effective coniferous cover, will promote strong forage utility even with close proximity to roads. The effect from snow conditions will be similar to that discussed above, except that the easternmost units are used little by big game during the late winter and early spring period when crusting is most pronounced.

Since units 1-7 have little suitable substrate for woodland raptor nesting or cavity dwelling species, and are composed of regenerating pinyon and juniper trees in former sagebrush parks, it would be more appropriate ecologically to eliminate the tree canopy. It is recommended that all trees be removed from units 1-7 with exception of mature woodland areas that will be marked by BLM biologists in Units 4 and 6 (see mitigation measures below). Treatment in these units would serve to reestablish historical shrubland character on about 72 acres. This relatively dense conifer regeneration supports few birds at present. It is likely that with tree removal, populations of shrub-steppe species will increase dramatically (e.g., Brewer's and vesper sparrow, green-tailed towhee). Reestablishing shrubland dominance on the periphery of this area's historic sage steppe distribution will not, in and of itself, bolster regional populations of shrub-steppe species. However, elimination of the tree component would set back successional processes several decades, as well as provide a nucleus for future restoration efforts. This effort would complement ongoing cooperative efforts of the Colorado Division of Wildlife (CDOW) and BLM in maintaining sage steppe habitats for sage grouse in this region.

The proposed treatment of woodland canopies will not significantly affect raptor and non-game populations, even at the most local of scales. In those units (4, 6, 12, and 13) with mature woodland components, it would be advantageous to leave mature trees that offer substrate for cavity dwelling species. BLM biologists will mark trees that are capable of providing a mixture of hard and soft snags to promote more diversified short and long-term non-game use in these units. These marked trees will not be treated or removed.

Impact of No Action Alternative: The no-action alternative would have no influence on existing wildlife.

Noxious Weeds, Invasive, Non-Native Species:

Affected Environment: The noxious weeds houndstongue, mullein, Russian knapweed, spotted knapweed, bull thistle and black henbane all occur in the proposed project area. The invasive species cheatgrass also occurs in the area. All these species are or have been associated with disturbance as a result of oil and gas development and production in this area.

Impact of Proposed Action: Existing noxious weeds could be spread by mechanical equipment operating in infested areas. The greatest potential for the spread of noxious weeds and invasive species, particularly spotted knapweed, bull thistle and mullein, as a result of the treatments is on the ridge between Gardenhire and Collins Gulch (southwest corner of the project area, see attached Map2). This is because in this area, these species occur on or adjacent to the road which will be used to access these sites. Implementation of the mitigation measures listed will minimize the potential spread of noxious weeds.

Impact of No Action Alternative: There will be no impact to the spread of noxious weeds.

Visual Resources:

Affected Environment: The natural visual landscape of the proposed project area is interrupted at numerous locations by mineral development facilities and disturbances (e.g. powerlines, well pads, access roads, pipelines, and sodium mine facilities). The proposed

project lies within a Visual Resource Management class III area (BLM 1997). The VRM class III objective is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Impact of Proposed Action: The majority of the proposed action will be outside of any long-term view shed such as Rio Blanco County road 5. The time in which a viewer would have to identify the project is less than 5 seconds at a speed of 50 miles per hour. The existing power line at present will continue to draw the viewer's attention rather than the proposed clearings. In sum, the proposed action will not dominate the landscape and the features of the action do repeat or follow the basic elements in the surrounding environment, thus meeting standards for VRM class III.

Impact of No Action Alternative: No impact on visual resources and VRM class III objectives will be attained.

Noise:

Affected Environment: The region in the immediate vicinity of the proposed project is Pinyon Juniper wildland. However, the area is also subject to substantial oilfield industrial use that entails a high level of background noise from vehicles and heavy equipment. The powerline itself emits a noticeable level of noise.

Impact of Proposed Action: During the actual clearing operation the noise level will be substantial. Hydro axes emit both engine noise and the noise associated with the shredding of the woody material. Similarly chain saws are loud. However the duration of this noise will be short, and intermittent. Since the treatment units are distributed in a linear fashion over many miles no one area will be subjected for continuous noise levels for more than two to three work days. No people or resources will be disrupted by the noise from the project.

Impact of No Action Alternative: The residual noise levels described in the effected environment will continue.

Air Quality:

Affected Environment: There are no special designation air sheds or non-attainment areas nearby that would be affected by the proposed action.

Impact of Proposed Action: Smoke from the burning of slash piles may slightly diminish air quality for a short time period (the duration of burning the piles). However, this minor, localized impact is not considered significant.

Impact of No Action Alternative: There would be no impact to air quality.

Forest Management:

Affected Environment: The proposed action would affect approximately 300 acres of pinyon/juniper woodland along the powerline. These woodlands are nearly an even mix of

pinyon and Utah juniper. These stands are uneven aged and at various successional stages. The majority of the stands are middle aged in terms of stand development and have not developed the large spreading stature common in older pinyons. Fire frequency in the pinyon/juniper community, of this area, is estimated at 100-150 years for stand replacing fires. Most of the stands in this area are within this age bracket and have the potential for a large-scale fire. Pinyon and juniper are valuable sources of firewood. Juniper is commonly harvested for fence posts. Within the project area there are few access roads which would allow for removal of woodland products on either a private or commercial basis.

Impact of Proposed Action: The proposed action would involve thinning of trees of various ages in pinyon/juniper stands to protect the power line and poles. This would decrease wood volumes by approximately 2/3 in the area of the proposed action. The decrease in biomass is expected to have a life span of no more than 30 years, and is limited to the small acreage of the proposed project area. Partial removal of the pinyon/juniper overstory is expected to increase growth rates in the remaining trees, as a result of decreased competition. This increased growth will eventually replace the volume lost as a result of the project.

Impact of No Action Alternative: Since the estimated age of most of the woodlands in the project area is equal to the stand-replacing fire frequency (100-150 years) in these pinyon/juniper communities, the potential for occurrence of stand-replacing wildfire and resulting destruction of all trees in the project area would remain high.

Rangeland Management:

Affected Environment: The proposed action is within both summer and winter use areas of the Little Hills allotment (06006). Burke Brothers use the allotment as part of their cattle operation from May 1 through the end of October on a yearly basis. The winter use area is used by Pat Johnson and MTW Ranch from mid November through late January on a yearly basis, snow conditions permitting. The northwestern portion of the project area is within the Hatch Gulch allotment (06028). The Brennan and Mantle Ranch cattle operations use this allotment on a yearly basis, from the middle of November through late January.

Impact of Proposed Action: The proposed treatments, particularly the hand cutting followed by piling and burning, will stimulate herbaceous forage production in areas where production has previously been limited by the canopy cover of pinyon- juniper trees. While the increase in forage production will not be significant (less than 50 AUMs), the action will have a beneficial impact on the distribution of cattle on rangelands in this area by drawing them to areas which have previously been underutilized.

Impact of No Action Alternative: The potential beneficial impact of the proposed action would not occur.

Resources Not Present, or Not Affected: There are no Native American or Environmental Justice concerns associated with this project. There are no threatened or endangered species (plant or animal) or critical habitat, areas of critical environmental concern (ACECs), prime and unique farmlands, floodplains, wetlands, riparian zones, wilderness areas, or wild and scenic rivers present in the project area; and none of these resources will be affected by the proposed

action. Also, no hazardous wastes will be generated by the project, and there will be no associated impacts to water quality.

Cumulative Impacts: BLM has, and will continue to treat areas of heavy fuels throughout the White River Resource Area in accordance with the White River Fire Management Plan (BLM 1999). Treating various areas of heavy fuels (especially tightly spaced pinyon/juniper canopy) will reduce the potential for catastrophic wildfire by transforming a running crown fire back to the surface, where suppression efforts can be more effective. Once the proposed action has been implemented, BLM can more safely treat other areas in the vicinity that have heavy fuels buildup, using prescribed fire. This would further reduce the potential of wildfire damage to the industrial facilities in the area.

The oil, gas, and other mineral development in the vicinity of the project will cumulatively contribute to the noxious weeds, visual, noise, and air quality, impacts identified above. Although mitigation should eliminate spread of noxious weeds by the proposed project, any that does occur will add to the problem that already exists as a result of mineral development in the area (see the Noxious Weeds section). The existing powerlines, well pads, pipelines, access roads, and mining complex structures have already altered the visual landscape in this area. The minor additional change, resulting from the proposed action, will not significantly contribute to these already existing, more noticeably visible detractions from the natural landscape. Vehicle use and construction equipment associated with continued oil and gas development may create fugitive dust which may temporarily contribute to adverse affects on air quality. However, fugitive dust usually occurs during extreme dry periods, and slash burning, as described in the proposed action, will not occur under these conditions. Noise from industrial equipment and truck traffic in the vicinity of the proposed project will add to the noise from the proposed project. However, the noise from the proposed project will be only temporary, and the cumulative noise level will be very localized. Cumulative noise will not likely affect people or resources in the area.

AGENCIES AND PERSONS CONSULTED: This project was planned in close collaboration between BLM and the Rio Blanco County Development Department. The White River Rural Electric Association, owner and operator of the subject powerline, was also involved in project planning. The Colorado Division of Wildlife was consulted concerning sage grouse and raptor species.

ATTACHMENTS:

Appendix A (Site Specific Notes on the Character of Discrete Treatment Units)

Appendix B (References)

Appendix C (List of Preparers)

Map 1: General Location of the Proposed Action

Map 2: Detailed Location of the Proposed Action

Map 3: Numbered Discrete Treatment Units

--Appendix A--
Site Specific Notes on the Character of Discrete Treatment Units
(See Map 3 for location of units)

- 1: (20 acres) 50-75 year old regeneration in serviceberry/big sagebrush park
- 2: (4 acres) 50-75 year old regeneration in serviceberry/big sagebrush park
- 3: (10 acres) heavy 50-75 year old regeneration with scattered early mature
- 4: (15 acres) predominantly 50-75 year old regeneration, except 2-acre old growth at southern tip
- 5: (13 acres) predominantly 50-75 year old regeneration, about 20% with scattered early mature in matrix (might as well connect 4 and 5).
- 6: (16 acres) 4-5 acres of mature woodland on south end. Remaining older regeneration with early mature component in matrix
- 7: (2 acres) intersection of road, trail, and powerline. About ½ regeneration, remaining heavily modified by firewood cutting and insects.
- 8: (8 acres) Much regeneration in interior of unit (insect-killed pinyon). Mature woodland around perimeter (about 2 acres), but strongly modified by firewood cutting and insects.
- 9: (3 acres) Mature stand but heavily modified by loss of pinyon (most insect killed a decade or more past, all thrown).
- 10: (19 acres) early mature woodland (first generation-no large woody debris on floor). Canopy long modified from juniper post cutting (pre-chain saw, ~prior to mid-60's) and fuelwood removal of insect kill. Northern edge associated with large sage park complex with strong older regeneration encroaching openings and scattered early mature. Northern boundary follows old park margin, avoids consolidated and intact mature woodlands to north.
- 11: (2 acres) small shale point with low density stunted trees; bounded on two sides by intersecting roads; narrow southwest point (about ½ acre) removed from treatment to provide additional buffer for goshawk nest territory.
- 12: (8 acres) consists of ~50 yard margin around east and south sides of existing sagebrush park; about 3 acres woodland with ½ mature/ 1/2 early mature
- 13: (7 acres) ½ early mature abutting sage park and barren knoll; remaining half mature and largely intact woodland

--Appendix B--

References

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--Appendix C—

List of Preparers

The following staff member from the Bureau of Land Management participated in preparation of this environmental assessment:

<u>Staff Member</u>	<u>Position</u>
Penny Brown	Realty Specialist
Jim Cagney	Supervisor, Renewable Resources
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Chris Ham	Recreation Planner
Garner Harris	Fire Management Specialist
Carol Hollowed	Hydrologist
Ed Hollowed	Wildlife Biologist
Tamara Meagley	Special Status Plants Specialist
Scott Pavey	Planning and Environmental Coordinator
Michael Selle	Archeologist